

Christopher R. Culpepper

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CAREER OBJECTIVE To start a career in the field of Systems or Computer Engineering starting in May 2017 designing electronic hardware, Systems Engineering, or creating embedded software.

EXPERIENCE *Test Engineer Co-op* *January 2016 - May 2016*

Space Exploration Technologies, Hawthorne CA

- Created software to automate the creation of trouble reports
- Developed tests to test flight avionics hardware
- Troubleshoot issues with avionics test racks

Systems Engineering Co-op

July 2013 - Present

General Dynamics Mission Systems, Pittsfield MA

- Performed software and systems testing on weapon control software
- Managed requirements and test cases
- Developed automated testing tracker that was used to status testing progress to management

Computer Engineering Lab Teaching Assistant

January 2015 - Present

Computer Engineering Department, RIT, Rochester, NY

- Responsible for grading student reports and assisting students with ARM assembly language
- Mentored new Computer Engineers in order to increase retention and create better engineers.

PROJECTS *High Altitude Balloon Telemetry Tracker*

- Personally developed hardware and software design and implementation
- Developing radio board to have the ability to use FSK, AFSK, or audio-based protocols
- Utilized multiple PCBs in order to separate functionality and increase reusability
- Can communicate GPS and other sensor data to the Amateur Radio APRS network

Wideband Oxygen Sensor Controller

- Designed, built and programmed sensor controller that measured oxygen concentration
- Incorporated PID loops to keep a sensor at a constant temperature and oxygen concentration
- Could have been calibrated to measure accurate oxygen concentrations

Assembly Language Pong Game

- Created a 1.5D Pong game for a school project in HCS12 assembly
- Required HCS12 assembly, PWM, ADC and digital output

Radio-Internet Hotspot Transceiver (Multidisciplinary Senior Design)

- Worked on a multidisciplinary group consisting of 3 EEs
- Device acts as an audio bridge between RF and the Allstar radio network
- Completing entire design process from customer requirements to prototyping and handoff.

AWARDS & SKILLS

Eagle Scout

A+ Certified

Languages & Software:

C

Python

Microsoft Office

Kicad PCB Design Software

Visual Basic for Applications (VBA)

ARM & HCS12 Assembly

DOORs

L^AT_EX

EDUCATION *Bachelor of Science, Computer Engineering GPA: 3.03*

Rochester Institute of Technology, Rochester NY, Expected May 2017

Applied Programming

Interface and Digital Electronics

Data Communication and Networks

Introduction to Software Engineering

Assembly Language Programming

Multidisciplinary Senior Design

Electronics I&II

Digital IC Design

COMMUNITY SERVICE *Assistant Scoutmaster at Boy Scout Troop 88, North Adams, MA*

- Mentored Scouts to achieve rank and acquire valuable life skills
- Assisted with multiple community service projects

Radio communication at multiple road rallies

- Operated in a high-stress environment to prevent accidents and mistakes
- Responsible for maintaining communication for racing stages and to central management
- Relayed pertinent information to competitors, stage captain and race officials

PERSONAL INTERESTS AND HOBBIES

Amateur Radio Extra

Motorcycle and Automobile repair

Camping and hiking

Member of the K2GXT RIT Amateur Radio Club